

Response to Notice of Non-Compliant Amendment
U.S. Appl. No.: 10/595,635
Attorney Docket No. LAV0313158

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended): A system for assisting in the regeneration of depollution means associated with oxidation catalyst-forming means and integrated in an exhaust line of a motor vehicle diesel engine, and in which the engine is associated with common rail means for feeding fuel to the cylinders of the engine and adapted, at constant torque, to implement a strategy of regeneration by injecting fuel into the cylinders in at least one post-injection, the system comprising:

- detector means for detecting a request for regeneration and thus for post-injection;
- detector means for detecting a stage during which the engine is idling;
- acquisition means for acquiring the temperature downstream from the catalyst-forming means;
- determination means for responding to said temperature to determine a maximum duration for the application of post-injections during a stage of idling; and
- reduction means for progressively reducing ~~the or each post-injection~~ the post-injections as soon as the duration of post-injection utilization has reached the predetermined maximum duration of application during this stage of idling.

2. (Currently amended): A system according to claim 1, wherein the reduction means ~~are~~

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is adapted to reduce ~~the or each post-injection~~ the post-injections in application of a calibratable slope.

3. (Currently amended): A system according to claim 1, wherein the depollution means ~~comprise~~ comprises a particle filter.

4. (Currently amended): A system according to claim 1, wherein the depollution means ~~comprise~~ comprises a NOx trap.

5. (Previously presented): A system according to claim 1, wherein the fuel includes an additive to be deposited together with the particles with which it is mixed on the depollution means in order to facilitate regeneration thereof.

6. (Previously presented): A system according to claim 1, wherein the fuel includes a NOx trap forming additive.

7. (Previously presented): A system according to claim 1, wherein the engine is associated with a turbocharger.

8. (New): A system according to claim 2, wherein the depollution means comprises a particle filter.

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9. (New): A system according to claim 2, wherein the depollution means comprises a NOx trap.

10. (New): A system according to claim 3, wherein the depollution means comprises a NOx trap.

11. (New): A system according to claim 8, wherein the depollution means comprises a NOx trap.

12. (New): A method for assisting in the regeneration of a depollution device associated with an oxidation catalyst and integrated in an exhaust line of a motor vehicle diesel engine, and in which the engine is associated with a common rail for feeding fuel to the cylinders of the engine and adapted, at constant torque, to implement a strategy of regeneration by injecting fuel into the cylinders in at least one post-injection, the method comprising:

- detecting a request for regeneration and thus for post-injection;
- detecting a stage during which the engine is idling;
- acquiring the temperature downstream from the oxidation catalyst;
- responding to said temperature by determining a maximum duration for the application of post-injections during a stage of idling; and
- progressively reducing the post-injections as soon as the duration of post-injection

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utilization has reached the predetermined maximum duration of application during this stage of idling.

13. (New): A method according to claim 12, wherein the reduction means is adapted to reduce the post-injections in application of a calibratable slope.

14. (New): A method according to claim 12, wherein the depollution device comprises a particle filter.

15. (New): A method according to claim 12, wherein the depollution device comprises a NOx trap.

16. (New): A method according to claim 12, wherein the fuel includes an additive to be deposited together with the particles with which it is mixed on the depollution device in order to facilitate regeneration thereof.

17. (New): A method according to claim 12, wherein the fuel includes a NOx trap forming additive.

18. (New): A method according to claim 12, wherein the engine is associated with a turbocharger.

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19. (New): A method according to claim 13, wherein the depollution device comprises a particle filter.

20. (New): A method according to claim 13, wherein the depollution device comprises a NOx trap.

21. (New): A method according to claim 14, wherein the depollution device comprises a NOx trap.

22. (New): A method according to claim 19, wherein the depollution device comprises a NOx trap.